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EXAMINER

CHANKONG, DOHM

| ART UNIT | PAPER NUMBER |
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2152

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,955

Applicant(s)

NISHI, KOJI

Examiner

Dohm Chankong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/17/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1> Applicant's remarks have been received and reviewed. Claims 1-10 are presented for examination.

Response to Amendment

2> Claims 2-7 and 9 were objected to for having inappropriate prefacing of the claims, using the word "A". In regards to this objection, Applicant has amended claims 2-7 and 9 prefacing the claims with "The".

The objections of claims 2-7 and 9 are withdrawn.

Response to Arguments

3> In regards to the rejection of claims 1-7 and 10 under 35 U.S.C § 102(e), Applicant is arguing in substance that the Yates reference does not disclose a service broker device for providing a broker function for achieving agreement between said plurality of providers in each domain. In support of this assertion, Applicant argues that Yates only teaches that the domains negotiate with each other for achieving agreement to fulfill a service request without the use of a central device to broker such an agreement.

Examiner respectfully disagrees. Applicant is correct in stating that agents of each domain negotiate with each other to fulfill a service request. However, this functionality is located on the other side (of the network) of Yates' terminal domain and device, which acts as a service broker for the users located on the opposite side of the terminal domain [see Figure 1]. The agents of the domains represent the service providers in

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the network, and the users, customers or retailers analogous to the user terminals. Yates' terminal domain has the limitations as claimed in the present application.

Specifically, the terminal domain, at the functional host layer, acts as a broker between users and the services provided by the service provisioning system as represented by the agents of the various services [column 15 «lines 33-40» | column 25 «lines 52-56»]. That is, the users of the system must go through the terminal domain to access any services, and the terminal domain negotiates for the users to reach an agreement with the plurality of providers [column 15 «lines 49-63»]. Therefore, Examiner maintains that the terminal domain is analogous in functionality to Applicant's claimed service broker device, providing all the limitations as claimed.

In light of the foregoing remarks, Examiner believes that the 35 U.S.C § 102(e) rejection under Yates is proper.

Claim Rejections - 35 USC § 102

4> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly

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from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5> Claims 1-7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Yates et al (hereinafter Yates), U.S. Patent No. 6,330,586.

6> As to claim 1, Yates teaches a quality assured network service provision system compatible with a multi-domain network (abstract, column 16, lines 1-5), wherein:

a communication network comprising a plurality of operations management networks (domains) which are connected to a plurality of customer networks with user terminals and which are managed by different providers (abstract, column 1, line 65 to column 2, line 9), includes:

a network service management device for collectively managing device cluster incorporated within an operations management network of each of said providers, and receiving service orders and faults information from customers (column 3, lines 25-28 and column 4, lines 23-40 where the agents are equivalent to a management device as they can collectively work together to provide 'management functionality'); and

a service broker device at the functional host layer of said network service management device cluster for providing a broker function for achieving agreement between said plurality of providers (column 15, lines 33-40, column 25, lines 52-56, column 15, line 64 to column 16, line 2).

7> As to claim 2, Yates teaches the quality assured network service provision system wherein:

said network service management device comprises an outputting device for outputting information on services which can be provided by each of said providers and domain information to said multi-service broker (column 13, lines 35-36 and column 15, lines 33-54 and column 26, lines 60-63); and

said service broker device comprises a device for storing output information from each network service management device, selecting a network service management device of a domain which will satisfy a required quality level when a network service request is generated by a customer, and issuing instructions for introducing and setting necessary information (column 10, lines 52-54, column 13, lines 36-43, column 15, lines 41-63, column 16, lines 11-27, column 26, lines 60-63)

8> As to claim 3, Yates teaches the quality assured network service provision system wherein:

said network service management device comprises an input and output device for input, by an operator, of information on services which can be provided by said provider and domain information made up of configuration information about an operations management network of said provider (column 22, lines 14-31 and lines 50-63);

storage devices for storing information input from said input and output device by information type (column 15, line 55);

a workflow server for determining transfer destinations for processing commands based on each service request from a customer (column 9, lines 1-7 and column 10, lines 8-11 where the DPE handles the workflow of the system and consists of servers that determine destinations of all messages and commands send in the system);

a bandwidth broker for registering said domain information and service information in said service broker device, and determining, in cooperation with said workflow server, a subject for executing a subsequent process (column 15, lines 8-12 and column 16, lines 55-63); and

an internal processing system for performing processing management of information required by said communication device (column 10, lines 33-45).

9> As to claim 4, Yates teaches a quality assured network service provision system, wherein:

said service broker device comprises a storage device for storing service information and domain information received from said network service management device (column 15, lines 41-60, column 18, lines 38-47 and column 23, lines 65-67); and

a data processing device for performing information processing such as writing and reading of information to and from said storage device, as well as providing a security management function relative to said bandwidth broker (column 24, lines 1-7 and lines 56-61).

10> As to claim 5, Yates teaches the system wherein:

said bandwidth broker and said workflow server have a means for deciding, based on

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logic, whether a subject for executing a subsequent process due to a customer service request is in an external system or an internal system (column 4, lines 17-26, lines 41-55 and column 15, lines 28-49 – where in this case, the internal system is the terminal domain, and the other domains are the external systems to the user located in the terminal domain);

said bandwidth broker has a means for deciding a domain in cases where subject for executing a subsequent process is an external system (column 4, lines 62-65 and column 14, line 66 to column 15, line 7); and

said workflow server has a means for deciding an internal processing system of a forward destination in cases where a subject for executing a subsequent process is in an internal system (column 10, lines 33-43, column 11, lines 19-30 – where the DPE is equivalent to the workflow server, and the terminal agent and user agent are located in the same domain, and therefore process the command within the internal system).

11> As to claim 6, Yates teaches a system wherein:

said service broker has a means for referring to service information stored in said service storage section and deciding whether a subject for executing a subsequent process due to a customer service request is in an external system or an internal system (column 4, lines 17-26, lines 41-55, column 15, lines 28-49, column 17, lines 49-53, column 18, lines 38-54, column 23, lines 65-67 and column 24, lines 57-58 where: the building blocks are analogous to an external system as they are external to the agent. If necessary, they are added to the agent to obtain their functionality);

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a means for deciding an external forward destination in cases where a subject for executing a subsequent process is in an external system (column 4, lines 62-65 and column 14, line 66 to column 15, line 7 – where the other domains are the external systems); and

a means for deciding an internal processing system of a forward destination in cases where a subject for executing a subsequent process is in an internal system (column 10, lines 33-43, column 11, lines 19-30).

12> As to claim 7, Yates teaches a system wherein:

said internal system comprises any one of a customer care server for managing service order information received from customers (column 19, lines 49-65),

a design server for managing network resources of an operations management network of a provider (column 10, lines 64-67),

a policy server for reading pre-recorded policy information, as well as converting said policy information into setting information for a communication device of a specific vendor, and performing provisioning of a communication device for the provision of a server (column 17, lines 33-60 and column 18, lines 9-13), and

a network management device for providing a network fault management function for a configuration management and open channel incorporating communication devices within an operations management network of a provider and connection configuration of circuitry for connecting said communication devices (column 9, lines 1-7 and column 10, lines 32-55 and line 64 to column 11, line 17),

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each of which is connected to said workflow server (column 15, lines 8-12 where the DPE is equivalent to the workflow server).

13> As to claim 10, Yates teaches a service broker device in an interconnected network for providing, in a network comprising a plurality of operations management networks which are connected to a plurality of customer networks with user terminals and which are managed by different providers, a broker function for achieving agreement between a plurality of providers based on configuration information and information on the services which can be provided by each provider network (column 4, lines 13-22, lines 27-40, column 15, lines 33-63, and column 16, lines 1-2 and lines 28-35),

wherein said service broker device is at a functional host layer of a network service management device [Figure 1 «item 101» | column 21 «lines 48-58»].

Claim Rejections - 35 USC § 103

14> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15> Claims 8-9 are rejected under 35 U.S.C 103(a) as being unpatentable over Yates, in view of Graham et al (hereinafter Graham), U.S Patent No. 6,594,700.

16> As to claim 8, Yates teaches a method of providing a quality assured network service compatible with a multi-domain network comprising:

a plurality of domains which are connected to a plurality of customer networks with user terminals and which are managed by different providers (Figure 1, column 4, lines 13-22 and 41-55), and incorporating

a network service management device for controlling collectively device clusters incorporated within an operations management network of each of said providers, as well as receiving service orders and faults information from customers (column 3, lines 25-28 and column 4, lines 23-40 where the agents are equivalent to a management device as they can collectively work together to provide 'management functionality'); and

a service broker device at the functional host layer of said network service management device cluster for providing a broker function for achieving agreement between said plurality of providers (column 3, lines 5-15, lines 37-59 and column 4, lines 17-21 and 41-55, and column 15, lines 33-40 and line 64 to column 16, line 2), wherein said method comprises:

a service agreement step in which a request is received from a customer, said service broker device and said network management device reach an agreement relating to service conditions for providing a service which will satisfy a required quality level, and route information for an appropriate domain and a network management device are selected (column 12, lines 15-36 and lines 60-65, column 16, lines 24-27, column 25, line 38 to column 26, line 11)

a service provisioning step for performing required service provisioning on a communication device based on service conditions and route information agreed upon in said

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network management device (column 12, lines 12-36 and column 14, line 57 to column 15, line 7).

However, Yates does not teach a service registration step in which a network management device of each provider registers in said service broker device, domain information comprising configuration information and information on services which can be provided.

17> Graham teaches a service registration step in which a network management device of each provider registers in said service broker device, domain information comprising configuration information and information on services which can be provided (column 6, lines 12-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Graham's service registration step into Yates to provide a central registry for providing convenient and efficient method for clients to look up services.

18> As to claim 9, Yates teaches the method wherein said service provisioning step further comprises a step for service order processing, a step for route design processing and a step for provisioning processing (column 11, lines 49-61, column 12, lines 15-36 and column 13, line 64 to column 14, line 3 - where the communication path and graph creation is equivalent to the route design).

Conclusion

19> The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art in regards to multi-domain network services:

U.S Patent No. 5,329,619 to Page et al.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3946. The examiner can normally be reached on 8:00AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC



Dung C. Dinh
Primary Examiner